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Memo

To:	File
Cc:	
From:	David Krizek
Title:	Copper World Project APP Facility Summary
Document:	019/22 – 15.5.1.8
Date:	July 28, 2022
Subject:	Classification of Facilities under ADEQ's APP Program

1.0 FACILITIES LIST AND APP DESIGNATIONS

This memorandum describes the facility designations determined for the Copper World Project (Project) based on Title 49 - The Environment, Chapter 2 - Water Quality Control, Article 3 - Aquifer Protection Permits of the Arizona Revised Statutes (A.R.S.). Based on these criteria, the location and facility types described within this document are outlined below.

Section 2.0: Addresses facilities that are not regulated under the APP program because they either fall within an exemption or will not result in a discharge.

Section 3.0: Summarizes facilities authorized by the statutory stormwater general permit found at A.R.S. § 49-245.01.

Section 4.0: Identifies five (5) facilities to be authorized by various general APPs adopted by rule.

Section 5.0: Lists fifteen (16) area-wide APP regulated facilities that are included in the Copper World Project individual APP Application.

A brief description of these facilities is presented in Sections 2.0 through 5.0. Each facility has been designated a facility ID number that corresponds to the appropriate regulatory category. **Figures 1 through 5** are provided with this memorandum showing the project and facility locations.

2.0 EXEMPT AND NON-DISCHARGING FACILITIES

A.R.S. § 49-250(B) identifies 26 classes or categories of facilities that are exempt from regulation under the APP program even if they might otherwise result in a "discharge" as broadly defined under the APP program.[1]

In addition to the classes or categories of facilities listed as exempt in A.R.S. § 49-250(B), ADEQ is authorized by A.R.S. § 49-250(A) to identify by rule additional classes of exempt facilities if certain showings are made. To date, ADEQ has identified six such classes of exempt facilities in Arizona Administrative Code (A.A.C.) R18-9-103. These six classes of facilities are:

- Facilities that treat, store, or dispose of hazardous waste and have been issued a permit or have interim status, under the Resource Conservation and Recovery Act (RCRA), or have been issued a permit according to the hazardous waste management rules adopted under 18 A.A.C 8, Article 2;
- Underground storage tanks that contain a regulated substance as defined in A.R.S. §49- 1001;
- Facilities for the disposal of solid waste, as defined in A.R.S. §49-701.01, that are located in unincorporated areas and receive solid waste from four or fewer households;
- Land application of biosolids in compliance with A.A.C. Title 18, Chapter 9, Articles 9 and 10;
- Coal Combustible Residual (CCR) Units regulated by 40 CFR 257, Subpart D or by a permit in effect under a Department program approved by the United States Environmental Protection Agency (EPA) in accordance with 42 United States Code (U.S.C.) § 6945(d)(1);
- Underground Injection Control Class V injection wells regulated under an area or individual permit per 18 A.A.C. 9, Article 6, Part I.

Facilities not covered by statutory or regulatory exemptions are regulated under the APP program if they either: (1) are considered categorical discharging facilities under A.R.S. § 49-241(B); or (2) result in a discharge as defined in A.R.S. § 49-201(12) (i.e., "the addition of a pollutant from a facility either directly to an aquifer or to the land surface or the vadose zone in such a manner that there is a reasonable probability that the pollutant will reach an aquifer").

The remainder of this section describes Copper World facilities that are non-discharging and/or covered by an APP exemption.

For many of the facilities described below, design components such as concrete-floored buildings with curbs and concrete sumps will be used to ensure the facilities are non-discharging and are exempt from regulation. In general, pipelines and tanks will be inspected and instrumented to prevent discharge. Secondary containment will also be utilized for tanks as described below.

Most of the facilities not subject to APP regulation that are associated with the proposed Project will be located within the Plant Site area as shown on **Figure 5**. Facilities located within the Plant Site area will be protected from stormwater run-on by the construction of elevated platforms that are hydraulically isolated from upgradient areas or protected via stormwater diversions.

[1] A facility can be considered exempt even if the facility otherwise would be a categorical discharging facility under A.R.S. § 49-241(B) (e.g., a mine tailings pile that qualifies as a closed facility). A.R.S. § 49-241(B) calls for categorical regulation of listed facilities under the APP program "[u]nless exempted under section 49-250 . . . ."

Stormwater run-off from the Plant Site area itself will be collected in the Process Plant Stormwater Pond shown on **Figure 5**. Stormwater reporting to the Process Area Stormwater Pond will be treated as contact water and recycled into the process circuit.

2.1 Copper World Facilities Not Subject to APP Regulation

The following is a list and a brief description of the planned Project facilities that are classified as non-discharging and/or exempt under the APP Program, with an accompanying explanation.

ND-OS-01 Fresh Water Well Fields, Pipelines, and Booster Stations

Fresh water for the Project will generally be supplied from well fields located west of the Santa Rita Mountains near the Town of Sahuarita (TOS), within the Tucson Active Management Area (AMA). Water from the wells will be routed to a concrete holding tank at Pump Station No. 1. located within Rosemont Copper Company's (Rosemont's) Sanrita South property. Water will then be pumped via pipeline to another concrete holding tank located at Pump Station No. 2 at the main Project site. The concrete holding tanks will be designed using standard engineering practices. The pipeline will have an inspection and instrumentation program. To the extent that the groundwater represents a "pollutant" under A.R.S. § 49-201(35), the discharge of which could require an APP, the pipelines and tanks will be constructed, operated, and maintained so as not to discharge and are therefore exempt from APP regulation under A.R.S. § 49-250(B)(22). The exemption at A.R.S. § 49-250(B)(6) also may be applicable to the pipeline and booster stations, i.e., facilities used solely for the transportation or storage of groundwater. The associated pipelines will be buried. See **Figures 3 and 4**.

ND-OS-02 Toro Switchyard and Pump Station Electrical Substation (Sanrita South)

Transformers associated with the Toro Switchyard and Pump Station Electrical Substation located at Sanrita South may contain coolant oils. The transformers qualify as tanks under A.R.S. § 49-201(46) and will be designed, constructed, and maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250 (B)(22).

Transformers capable of storing 55 gallons or more of oil will be further regulated by EPA 40 CFR Part 112 - Oil Pollution Prevention. A Spill Prevention, Control, and Countermeasure (SPCC) Plan will be prepared to address the appropriate regulations. See **Figure 3**.

ND-OS-03 138 kV Powerline

The 138 kV Powerline contains no fluids and as such has no potential to discharge pollutants to an aquifer. It therefore is considered non-discharging under the APP program. See **Figure 3**.

ND-GS-01 Fresh / Fire Water Tank

Fresh water from the Fresh Water Pipeline and Booster Stations will be pumped to the Fresh/Fire Water Tank. The tank will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; to the extent the fresh water is considered a “pollutant,” the tank is therefore, exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22). The exemption at A.R.S. § 49-250(B)(6) also applies to the tank, i.e., facilities used solely for the transportation or storage of groundwater.

The location of Fresh/Fire Water Tank is yet to be determined and is therefore not shown on the attached figures.

ND-GS-02 Explosive Storage Magazines

The Explosive Storage Magazines will consist of enclosed buildings constructed on concrete pads or self-contained units specifically designed for explosives storage. These are expected to be exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the buildings are not expected to result in an APP discharge, and therefore do not require permit coverage.

The location of these magazines is not shown on the attached figures per regulation.

ND-GS-03 Mine Water Tanks and Distribution System

Mine Water Tanks will be located throughout the Project site to store water for filling water trucks used for dust suppression along the haul roads, etc. These tanks will contain fresh water from the production water wells or other groundwater sources. The Mine Water Tanks will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge. To the extent the fresh water is considered a “pollutant,” the tanks and pipelines are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22). The exemption at A.R.S. § 49-250(B)(6) also applies to the tanks and distribution system, i.e., facilities used solely for the transportation or storage of groundwater.

The Mine Water Tanks are not shown on the attached figures as these tanks will be placed where needed throughout the property.

ND-GS-04 Field Office(s)

Field Office(s) will be modular, enclosed buildings designed and constructed not to discharge. These are expected to be exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the field office(s) are not expected to result in an APP discharge (except as noted in the next paragraph), and therefore do not require permit coverage.

The Field Office(s) will have restrooms that will discharge to an onside wastewater treatment facility that will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may go to a holding tank that would be serviced by a third-party contractor.

ND-GS-05 Tailings Slurry Pipeline(s)

The Tailings Slurry Pipeline(s) will have a rigorous inspection and instrumentation program and will be double-walled where buried. The slurry pipelines will be constructed, operated, and maintained so as not to discharge and are therefore exempt from APP regulation under A.R.S. § 49-250(B)(22).

ND-GS-05 Monitoring Wells

The monitor wells do not result in a discharge of fluids to groundwater, and ADEQ does not regulate monitoring wells or piezometers as APP discharging facilities. Facilities that receive water, drilling fluids, or drill cuttings associated with well development or sampling are covered by the 1.04 General APP (A.A.C. R18-9-B301(D)).

Monitor wells are not shown on the attached figures.

ND-OP-01 Rosemont Pit

Based on groundwater modeling, the Rosemont Pit will be a hydrologic sink and will not discharge to groundwater. It, therefore, is not a discharging facility that requires an APP.

ND-PS-01 Switchyard

Transformers associated with the Switchyard may contain coolant oils. Transformers qualify as tanks under A.R.S. § 49-201(46) and will be designed, constructed, and maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

Transformers capable of storing 55 gallons or more of oil will be further regulated by EPA 40 CFR Part 112 - Oil Pollution Prevention. An SPCC Plan will be prepared to address the appropriate regulations.

ND-PS-02 Plant Substation

Transformers associated with the Plant Substation may contain coolant oils. The transformers qualify as tanks under A.R.S. § 49-201(46) and will be designed, constructed, and maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. §49-250 (B)(22).

Transformers capable of storing 55 gallons or more of oil will be further regulated by the EPA 40 CFR Part 112 - Oil Pollution Prevention. An SPCC Plan will be prepared to address the appropriate regulations.

ND-PS-03 Mill Electric Gear

The Mill Electric Gear will be enclosed units located on concrete pads. These units contain no fluids and, given that they will be located on concrete pads, pose no potential for an APP discharge. Therefore, they are not regulated under the APP program.

ND-PS-04 SX-EW Rectifier / Substation

Transformers associated with the SX-EW Rectifier/Substation may contain coolant oils. The transformers qualify as tanks under A.R.S. § 49-201(46) and will be designed, constructed, and maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

Transformers capable of storing 55 gallons or more of oil will be further regulated by the EPA 40 CFR Part 112 - Oil Pollution Prevention. An SPCC Plan will be prepared to address the appropriate regulations.

ND-PS-05 Potable Water Tank and Distribution System

Fresh water from the Fresh/Fire Water Tank will be distributed to the Potable Water Tank. The tank will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; to the extent the fresh water is considered a “pollutant,” the tank and pipelines are, therefore, exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22). The exemption at A.R.S. § 49-250(B)(6) also applies to the tank and distribution system, i.e., facilities used solely for the transportation or storage of groundwater.

The location of the Potable Water Tank is yet to be determined and is therefore not shown on the attached figures.

ND-PS-06 Gatehouse (and weigh scale)

The Gatehouse will be a modular, enclosed building or enclosed facility built on a concrete pad that is designed and constructed not to discharge and is therefore expected to be exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the field office(s) are not expected to result in an APP discharge (except as noted in the next paragraph), and therefore do not require permit coverage.

The gatehouse will have restrooms that will discharge to an onside wastewater treatment facility that will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may go to a holding tank that would be serviced by a third-party contractor.

ND-PS-07 Administration / Mine Offices

Administration/Mine Offices will be modular, enclosed buildings or enclosed facilities built on concrete pads that are designed and constructed not to discharge and are therefore expected to be exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the field office(s) are not expected to result in an APP discharge (except as noted in the next paragraph), and therefore do not require permit coverage.

The Administration / Mine Offices will have restrooms that will discharge to an onside wastewater treatment facility (or facilities) that will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may also go to holding tanks that would be serviced by a third-party contractor.

ND-PS-08 Laboratory

The Laboratory will be an enclosed facility constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the laboratory is not expected to result in an APP discharge (except as noted in the last paragraph of this description), and therefore does not require permit coverage.

The Laboratory will contain a wet laboratory, a reagent storage area, a balance room, and analytical equipment. Also included is a facility to collect and manage waste chemicals in the laboratory. Disposal of the chemical or laboratory wastes will follow appropriate regulatory requirements.

The Laboratory will have restrooms that will discharge to an onside wastewater treatment facility that will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may also go to holding tanks that would be serviced by a third-party contractor.

ND-PS-09 Mine Change House

The Mine Change House will be an enclosed facility constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the mine change house is not expected to result in an APP discharge (except as noted in the next paragraph), and therefore does not require permit coverage.

The Mine Change House will have restrooms and showers that will discharge to an onside wastewater treatment facility that will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may also go to holding tanks that would be serviced by a third-party contractor.

ND-PS-10 Plant Maintenance Building

The Plant Maintenance Building will be an enclosed facility constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the plant maintenance building is not expected to result in an APP discharge (except as noted in the next paragraph), and therefore does not require permit coverage.

The building will have restrooms that will discharge to an onsite wastewater treatment facility that will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may also go to holding tanks that would be serviced by a third-party contractor.

ND-PS-11 Plant Office / Change House

The Plant Office/Change House will be an enclosed facility constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. §49-250 (B)(21). Even if the exemption did not apply, the plant office/change house is not expected to result in an APP discharge (except as noted in the next paragraph), and therefore does not require permit coverage.

The Plant Office / Change House will have restrooms and showers that will discharge to an onside wastewater treatment facility that will be permitted under a Type 4 general permit. Alternatively, sanitary

wastewater from the restrooms may also go to holding tanks that would be serviced by a third-party contractor.

ND-PS-12 Main Warehouse

The Main Warehouse will be an enclosed facility constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the main warehouse is not expected to result in an APP discharge (except as noted in the next paragraph), and therefore does not require permit coverage.

The Main Warehouse will have restrooms that will discharge to an onsite wastewater treatment facility that will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may also go to holding tanks that would be serviced by a third-party contractor.

NP-PS-13 Truck Shop (includes fuel station[s])

The Truck Shop will be an enclosed building constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the truck shop is not expected to result in an APP discharge (except as noted in the next paragraph), and therefore does not require permit coverage.

The Truck Shop will have restrooms that will discharge to an onsite wastewater treatment facility. These discharges will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may also go to holding tanks that would be serviced by a third-party contractor.

The Truck Shop area will also include the following:

<u>Heavy Equipment Fuel Storage and Dispensing</u>

A Heavy Equipment Fuel Storage and Dispensing facility will consist of two (2) 100,000-gallon aboveground diesel storage tanks and associated pipelines located within a concrete secondary containment structure. The fuel tanks will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22). Pipelines associated with the facility will have an inspection and instrumentation program and are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

Containers associated with the Heavy Equipment Fuel Storage and Dispensing facility that are capable of storing 55 gallons or more of oil will be further regulated by EPA 40 CFR Part 112 - Oil Pollution Prevention. An SPCC Plan will be developed to address the appropriate regulations.

<u>Light Vehicle Fuel Station</u>

The Light Vehicle fuel Station will consist of two (2) 10,000-12,000 gallon above-ground storage tanks and associated pipelines located within a concrete secondary containment structure. The fuel tanks will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

Pipelines associated with the facility will have an inspection and instrumentation program and are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

Containers associated with the Light Vehicle Fuel Station that are capable of storing 55 gallons or more of oil will be further regulated by EPA 40 CFR Part 112 - Oil Pollution Prevention. Rosemont will prepare an SPCC Plan to address the appropriate regulations.

ND-PS-14 Truck Wash

The Truck Wash facility will consist of an open concrete pad that will drain to concrete oil/water and solid/liquid separators. The facility is designed so that all fluids will be recirculated. The concrete separator tanks will be operated and maintained so as not to discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

The Truck Wash may also have restrooms that will discharge to an onsite wastewater treatment facility. These discharges will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may also go to a holding tank that would be serviced by a third-party contractor.

The Truck Wash area will also include the following:

Lube Bay

The Lube Bay will be an enclosed building constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250 (B)(21). The floor of the Lube Bay will drain floor wash fluid to the Truck Wash concrete separator tanks. Even if the exemption did not apply, the lube bay as designed is not expected to result in an APP discharge, and therefore does not require permit coverage.

A tank farm for the various lubrication oils and antifreeze, as well as used oil and used antifreeze, will be located adjacent to the Lube Bay. These aboveground storage tanks will be placed in a concrete secondary containment structure for spill control. Used oil and antifreeze will be collected and recycled. These tanks will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they will therefore be exempt pursuant to A.R.S. 49-250(B)(22).

Containers associated with the Lube Bay and adjacent tank farm that are capable of storing 55 gallons or more of oil will be further regulated by EPA 40 CFR Part 112 - Oil Pollution Prevention. An SPCC Plan will be prepared to address the appropriate regulations.

ND-PS-15 Primary Crusher – Sulfide Ore

The Sulfide Ore Primary Crusher will be an enclosed facility maintained on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the crusher is not expected to result in an APP discharge, and therefore does not require permit coverage. Accumulated water reporting to a sump(s) in the crusher “discharge” conveyor tunnel will be pumped to the process circuit for reuse. The sump qualifies as a “tank” under A.R.S. § 49-201(46); it will be designed, operated and maintained so as not to discharge, and therefore is exempt pursuant to A.R.S. § 49-250(B)(22).

The Primary Crusher (sulfide ore) may also have restrooms that will discharge to an onsite wastewater treatment facility. These discharges will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may also go to a holding tank that would be serviced by a third-party contractor.

ND-PS-16 Sulfide Ore Grinding Circuit

The Sulfide Ore Grinding Circuit will consist of facilities maintained on concrete pads to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the grinding circuit facilities (ball and Sag mills) are not expected to result in an APP discharge, and therefore do not require permit coverage.

The Sulfide Grinding area may also have restrooms that will discharge to an onsite wastewater treatment facility. These discharges will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may also go to a holding tank that would be serviced by a third-party contractor.

ND-PS-17 Copper Flotation

The Copper Flotation process equipment will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the copper flotation process equipment is not expected to result in an APP discharge, and therefore do not require permit coverage. Any tanks associated with the process will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they therefore will be exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-18 Molybdenum (Moly) Flotation

The Molybdenum (Moly) Flotation process equipment will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the moly flotation process equipment is not expected to result in an APP discharge, and therefore do not require permit coverage. Any tanks associated with the process will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they therefore will be exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-19 Reagent Storage (flotation/concentrate leach)

Reagents used in the flotation and concentrate leach circuits will require handling and mixing and distribution. Prior to mixing, reagents will be stored in secondary containment areas that will be designed, constructed, and maintained so as not to discharge and will be exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Storing these materials on a concrete pad, within a secondary containment, is not expected to result in an APP discharge.

After mixing, the reagents will be managed in tanks that will be designed using standard engineering practices for tanks and will be constructed, operated, and regularly maintained so as not to discharge. These tanks therefore will be exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

Pipelines associated with the Reagent Storage will have an inspection and instrumentation program and are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-20 Bulk Cu/Mo Thickener

The Bulk Cu/Mo Thickener will be a tank designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; it is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-21 Copper Concentrate Thickening, Filtering and Loadout

The Copper Concentrate Thickening, Filtering and Loadout process area will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Activities occurring on a concrete pad are not expected to result in an APP-regulated discharge.

Any tanks associated with the process will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

The Copper Concentrate Thickening, Filtering and Loadout process area may also have restrooms that will discharge to an onsite wastewater treatment facility. These discharges will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may also go to a holding tank that would be serviced by a third-party contractor.

ND-PS-22 Moly Concentrate Filtration and Bagging

The Moly Concentrate Filtration and Bagging process area will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Activities occurring on a concrete pad are not expected to result in an APP-regulated discharge.

Any tanks associated with the process will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-23 Tailings Thickeners

Tailings slurry from the Copper/Molybdenum Flotation and Regrind Circuit will be dewatered and thickened in the Tailings Thickener Tanks. These tanks will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

The Tailings Thickeners will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the plant is not expected to result in an APP discharge, and therefore do not require permit coverage.

ND-PS-24 Flocculant Plant (located at Tailings Thickeners)

The Flocculant Plant for the Tailings Thickeners will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the plant is not expected to result in an APP discharge, and therefore do not require permit coverage.

Any tanks associated with the plant will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-25 Limestone Grinding Plant / Lime Plant

The Limestone Grinding Plant/Lime Plant will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250 (B)(21). Even if the exemption did not apply, the plant is not expected to result in an APP discharge, and therefore does not require permit coverage.

Any tanks associated with the plant will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-26 Concentrate Leach Fine Grinding Plant

The Concentrate Leach Fine Grinding Plant will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250 (B)(21). Even if the exemption did not apply, the plant is not expected to result in an APP discharge, and therefore does not require permit coverage.

Any tanks associated with the plant will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

NP-PS-27 Concentrate Leach Circuit

The Concentrate Leach Circuit will receive copper concentrate from the copper/moly flotation and filtration circuit. The leach circuit will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the components of the circuit are not expected to result in an APP discharge, and therefore do not require permit coverage.

Tanks associated with the circuit will be placed in secondary containment areas and will be designed using standard engineering practices for tanks and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

Pipelines associated with the Concentrate Leach Circuit will have an inspection and instrumentation program and are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-28 Oxygen Plant(s)

The Oxygen Plant(s) will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the oxygen plant is not expected to result in an APP discharge, and therefore does not require permit coverage.

Any tanks associated with the plant will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-29 Concentrate Leach Desulfurization

The Concentrate Leach Desulfurization facility will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250 (B)(21). Even if the exemption did not apply, the desulfurization process plant is not expected to result in an APP discharge, and therefore does not require permit coverage.

Any tanks associated with the facility will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B0(22). Tanks would also be within a secondary containment.

Pipelines associated with the Concentrate Leach Desulfurization will have an inspection and instrumentation program and are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-30 Concentrate Leach Iron Control

The Concentrate Leach Iron Control facility will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the iron control facility is not expected to result in an APP discharge, and therefore does not require permit coverage.

Any tanks associated with the facility will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B0(22). Tanks would also be within a secondary containment.

Pipelines associated with the Concentrate Leach Iron Control will have an inspection and instrumentation program and are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-31 Concentrate Leach Flocculant Plant

The Concentrate Leach Flocculant Plant will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250 (B)(21). Even if the exemption did not apply, the flocculant plant is not expected to result in an APP discharge, and therefore does not require permit coverage.

Any tanks associated with the plant will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

Pipelines associated with the Concentrate Leach Flocculant Plant will have an inspection and instrumentation program and are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-32 Concentrate Leach Sulfur Purification

The Concentrate Leach Sulfur Purification facility will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the sulfur purification facility is not expected to result in an APP discharge, and therefore does not require permit coverage.

Any tanks associated with the facility will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. §49-250(B0(22). Tanks would also be within a secondary containment.

Pipelines associated with the Concentrate Leach Sulfur Purification will have an inspection and instrumentation program and are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-33 Acid Plant

The Acid Plant facility will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the acid plant is not expected to result in an APP discharge, and therefore does not require permit coverage.

Any tanks associated with the plant will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B0(22). Tanks would also be within a secondary containment.

Pipelines associated with the Acid Plant will have an inspection and instrumentation program and are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-34 Gold/Silver Leach Circuit

The Golf/Silver Leach Circuit will be constructed on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the circuit is not expected to result in an APP discharge, and therefore does not require permit coverage.

Any tanks associated with the circuit will be placed in secondary containment areas and will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22). Tanks would also be within a secondary containment.

Pipelines associated with the Gold/Silver Leach Circuit will have an inspection and instrumentation program and are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

ND-PS-35 Primary Crusher – Oxide Ore

The Oxide Ore Primary Crusher will be an enclosed facility maintained on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the crusher is not expected to result in an APP discharge, and therefore does not require permit coverage. Accumulated water reporting to a sump(s) in the crusher "discharge" conveyor tunnel will be pumped to the process circuit for reuse. The sump qualifies as a "tank" under A.R.S. § 49-201(46); it will be designed, operated and maintained so as not to discharge, and therefore is exempt pursuant to A.R.S. § 49-250(B)(22).

The Primary Crusher (oxide ore) may also have restrooms that will discharge to an onsite wastewater treatment facility. These discharges will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may also go to a holding tank that would be serviced by a third-party contractor.

ND-PS-36 Oxide Secondary Crusher

The Oxide Ore Secondary Crusher will be an enclosed facility maintained on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the secondary crusher is not expected to result in an APP discharge, and therefore does not require permit coverage. Accumulated water reporting to a sump(s) in the crusher "discharge" conveyor tunnel will be pumped to the process circuit for reuse. The sump qualifies as a "tank" under A.R.S. § 49-201(46); it will be designed, operated and maintained so as not to discharge, and therefore is exempt pursuant to A.R.S. § 49-250(B)(22).

ND-PS-37 Oxide Conveyor Transfer Point / Agglomerator

The Oxide Conveyor Transfer Point / Agglomerator will be maintained on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the transfer point is not expected to result in an APP discharge, and therefore does not require permit coverage. Accumulated water reporting to a sump(s) in the transfer point area will be pumped to the process circuit for reuse. The sump qualifies as a "tank" under A.R.S. § 49-201(46); it will be designed, operated and maintained so as not to discharge, and therefore is exempt pursuant to A.R.S. § 49-250(B)(22).

ND-PS-38 Crushed Oxide Ore Conveyor System

The Crushed Oxide Ore Conveyor System will transfer agglomerated oxide ore to the heap leach pad. There are no free liquids associated with the conveyed ore. No APP discharge is expected from the conveyor system. Additionally, the conveyor system is primarily located with lined heap leach pad.

ND-PS-39 Solvent Extraction Plant

The Solvent Extraction (SX) Plant will receive PLS from the heap leach pad (HLP) and from the concentrate leach circuit. The operational facilities of the SX Plant will be maintained on a concrete pad to eliminate the possibility of discharge and are therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the SX plant is not expected to result in an APP discharge, and therefore does not require permit coverage.

The processing circuit will use several tanks and pipelines to store and transport the various solutions. Tanks associated with the SX Plant will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP relegation pursuant to A.R.S. § 49-250(B)(22). Tanks will also be in secondary containment.

Pipelines associated with the SX Plant will have an inspection and instrumentation program and are therefore exempt from APP regulation pursuant to A.R.S. § 49-250 (B)(22).

ND-PS-40 Electrowinning Plant

The Electrowinning (EW) Plant will receive solutions from the Solvent Extraction Plant. The operational facilities of the EW Plant will be maintained on a concrete pad to eliminate the possibility of discharge and is therefore exempt from APP regulation pursuant to A.R.S. § 49-250(B)(21). Even if the exemption did not apply, the SX plant is not expected to result in an APP discharge, and therefore does not require permit coverage.

Tanks associated with the EW Plant will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP relegation pursuant to A.R.S. § 49-250(B)(22). Tanks will also be in secondary containment.

Pipelines associated with the EW Plant will have an inspection and instrumentation program and are therefore exempt from APP regulation pursuant to A.R.S. § 49- 250(B)(22).

The EW Plant area (tank-house) may also have restrooms that will discharge to an onsite wastewater treatment facility. These discharges will be permitted under a Type 4 general permit. Alternatively, sanitary wastewater from the restrooms may also go to a holding tank that would be serviced by a third-party contractor.

ND-PS-41 Reagent Storage (SX-EW)

Reagents used in the SX-EW process will require handling and mixing and distribution. Prior to mixing, reagents will be stored in secondary containment areas that will be designed, constructed, and maintained so as not to discharge and will be exempt from APP regulation pursuant to A.R.S. §49-250 (B)(21). Storing

these materials on a concrete pad, with secondary containment, is not expected to result in an APP discharge.

After mixing, the reagents will be managed in tanks that will be designed using standard engineering practices for tanks and will be constructed, operated, and regularly maintained so as not to discharge. These tanks therefore will be from APP regulation pursuant to A.R.S. §49-250 (B)(22).

Sulfuric acid will also be stored in this area. Sulfuric acid will be stored in storage tanks which will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore exempt from APP regulation pursuant to A.R.S. §49-250 (B)(22). Acid will be transferred from the delivery trucks to the storage tanks by a system of hoses and pipelines. Activities will occur within a secondary containment area and are therefore not expected to result in an APP-regulated discharge.

ND-PS-42 Ammonium Nitrate Storage

The Ammonium Nitrate Storage facility will include three (3) elevated ammonium nitrate silos that will be designed using standard engineering practices and will be constructed, operated, and regularly maintained so as not to discharge; they are therefore tanks exempt from APP regulation pursuant to A.R.S. § 49-250(B)(22).

EX-GM-01 Growth Media Stockpile(s)

Pursuant to A.R.S. § 49-250(B)(20), the storage, treatment, or disposal of inert material is exempt from the aquifer protection permit. Soil is identified as an inert material pursuant to A.R.S. § 49-201(22).

Rosemont will stockpile soil (growth media) that has been stripped from the Project site facilities for use in reclamation activities. The Growth Media Stockpile will be managed using the appropriate best management practices to minimize sediment loading in stormwater.

EX-CF-01 Helvetia Smelter Slag Pile

The Helvetia Smelter was removed from operation prior to January 1986 and only the associated slag pile and concrete foundations remain. A photograph of the slag pile is provided as **Illustration 1**. The existing slag pile meets the definition of a closed facility at A.R.S. § 49-201(7)(a) and is therefore exempt from APP regulation pursuant to A.R.S. §49-250(B)(11). As shown on **Figure 4**, the Slag Pile is located within the footprint of the transition between the Waste Rock Facility (WRF) and the Plant Site and will be covered with waste rock.

Illustration 1: Helvetia Smelter Slag Pile

EX-CF-02 Copper World Reclaimed Tailings

The Copper World Mill was removed from operation prior to January 1986 and only the reclaimed tailings pile remains. The site was reclaimed in the mid-90s by ASARCO as part of a consent decree. A photograph of the reclaimed tailings is provided as **Illustration 2**. The pile meets the definition of a closed facility in A.R.S. § 49-201(7)(a) and is therefore exempt from APP regulation pursuant to A.R.S. §49-250(B)(11). As shown on **Figure 4**, the reclaimed Copper World tailings pile is located within the footprint of the Copper World Pit and will therefore be mined out. The areas will eventually be backfilled with waste rock as part of the waste Rock Facility (WRF).

Illustration 2: Copper World Reclaimed Tailings

3.0 STORMWATER MANAGEMENT FACILITIES

Stormwater at the Project site will be managed such that stormwater that contacts process areas or active mining areas, such as within the pit shells, will be considered contact water and retained on-site. Stormwater from unimpacted areas (non-contact water) upgradient of the facilities will generally be routed around or through the facilities via stormwater channels or piped conveyances and released to downgradient drainages. Stormwater runoff from reclaimed facilities will also be routed offsite, as will stormwater runoff from the outer slopes of the Waste Rock Facility (WRF). The placement of materials in the WRF will follow Rosemont's Waste Rock Management Plan (2022) with regard to the placement of non-acid generating (NAG) material on the outer slopes. Sediment basins or other controls will be placed as needed to control sediment in the runoff or dissipate flow velocities.

In accordance with the statutory general permit at A.R.S. § 49-245.01, which covers facilities used solely for the management of stormwater, Rosemont will comply with the ADEQ's Industrial Multi-Sector General Permit (MSGP-2019). A Stormwater Pollution Prevention Plan (SWPPP) will be developed to address the requirements of MSGP-2019.

The overall water management approach for the Copper World Project is described in the Site Water Management Plan (Wood, 2022) and not reproduced herein, i.e., the stormwater facilities are not shown on the attached figures. Additionally, the different stormwater facilities (GP-SW- 01) are not provided separate designations within this document.

Stormwater management facilities include, but are not limited to, the following:

- Permanent diversion channels;
- Temporary diversion channels;

- Drainage pipes underneath facilities; and
- Sediment basins and other energy dissipation structures.

As noted, stormwater runoff impacted by process areas will not be released offsite. Only runoff from reclaimed surfaces or from the outer slopes of the WRF will be released off site. Outfalls and sampling locations will be established as part of obtaining coverage for the Copper World Project under the MSGP-2019. As such, these outfalls are not shown in Wood (2022). Additionally, the different stormwater facilities (GP- SW-01) are not provided separate designations within this document.

Any impoundments used to contain only non-contact stormwater are exempt from APP regulation pursuant to A.R.S. § 49-250(B)(10).

4.0 GENERALLY PERMITTED APP REGULATED FACILITIES

This section describes facilities that are anticipated to be permitted under general APP permits.

GP-PS-01 Sewage Treatment Facilities (Type 4 General Permit)

Several facilities in the Plant Site area will have running water, bathrooms, and/or showers. The sewage disposal system planned for these facilities will be septic tanks with associated leach fields. There will be no disposal of unapproved waste in the systems.

Notices of Intent (NOIs) for these systems will be submitted to ADEQ once designed. Facilities will be designed and operated to conform with the conditions of a Type 4 General Permit as described in A.A.C. R18-9-E301 Part E. Type 4 General Permits.

Facilities where septic systems may be incorporated include, but are not limited to, the following:

- Field Offices;
- Gatehouse;
- Administration / Mine Offices;
- Laboratory;
- Mine Change House;
- Plant Maintenance Building;
- Plant Office / Change House;
- Main Warehouse;
- Truck Shop;
- Truck Wash;
- Sulfide Ore Grinding Circuit Area;
- Copper Concentrate Thickening, Filtering and Loadout Area;
- Electrowinning Plant Area;
- Primary Crusher – Sulfide Ore; and
- Primary Crusher – Oxide Ore.

Percolation testing required for the design of the septic systems will occur once rough grading is completed.

GP-PS-02 SW Energy Vehicle and Equipment Wash (Type 3.03 General Permit)

The SW Energy Vehicle and Equipment Wash (SWE-V&E-W) will be developed under a Type 3.03 General Permit for equipment washes (A.A.C. R18-9-D301). The facility will be designed for light-duty pick-up trucks to prill trucks. Prill trucks are the approximate size as a typical 10-wheel dump truck and are used to transport prill to the blast holes located within the open pit areas. Prill is ammonium nitrate used in the blasting process.

The SWE-V&E-W facility will consist of a concrete wash pad and associated lined evaporation pond. The general location of the facility is shown on **Figure 5**.

The SWE-V&E-W facility will be evaluated during the Copper World Project area-wide APP application process and, as appropriate, an application for a Type 3.03 General APP for Vehicle and Equipment Washes, will be prepared and submitted to ADEQ. The SWE-V&E-W facility also may be incorporated into the area-wide permit.

GP-PS-03 Coarse Ore Stockpile – Sulfide Ore (Type 2.02 General Permit)

The Sulfide Ore Coarse Ore Stockpile (Sulfide Ore COS) will be developed as an intermediate ore stockpile located within the Plant Site area (**Figure 5**) between the Sulfide Primary Crusher and the grinding circuit. Primary crushed sulfide ore will be stockpiled on the ground with a reclaim tunnel installed beneath the COS that leads to the grinding circuit. Feeders will discharge ore to conveyor belts which will in turn discharge to the grinding circuit.

Stormwater controls would be installed to direct runoff around/away from the stockpile. Stormwater runoff generated from within the stockpile area would be routed to the Process Area Stormwater Pond (i.e., process circuit) via stormwater channels or via pumping from sumps located within the general area of the stockpile. Additionally, water that gets into the Reclaim Tunnel below the COS will be collected in sumps and pumped to the process circuit.

No leaching or man-made chemical alteration of the ore would be performed while the ore is stockpiled. Hazardous materials would not be added to the stockpile.

The Sulfide Ore COS will be evaluated during the Copper World Project area-wide APP application process and, as appropriate, an application for a Type 2.02 General APP for Intermediate Stockpiles at Mining Sites will be prepared and submitted to ADEQ. This evaluation will also assess whether permitting of the Sulfide Ore COS is even required based on the planned construction/operation of the facility. If permitting is required, the Sulfide Ore COS also may be incorporated into the area-wide permit.

Per A.A.C. R18-9-C302 2.02, the design and operation of Intermediate Stockpiles at Mining Sites must incorporate the following:

- The stockpile must be designed, constructed, and operated so that it does not impound water;
- Storm run-off contacting the stockpile must be directed to a facility covered by an individual or general permit;
- The engineered features of the stockpile facility shall be maintained in good working condition;
- The stockpile facility shall be visually inspected quarterly and any defect shall be repaired as soon as practical; and
- Hazardous substances shall not be added to the stockpiled material.

Additionally, at closure the remaining material will be removed to the greatest extent practicable, and the site area re-graded to prevent water from impounding.

GP-PS-04 Coarse Ore Stockpile – Oxide Ore (Type 2.02 General Permit)

The Oxide Ore Coarse Ore Stockpile (Oxide Ore COS) will be developed as an intermediate ore stockpile located within the Plant Site area (**Figure 5**) between the Oxide Primary Crusher and the Secondary Crusher. Primary crushed oxide ore will be stockpiled on the ground with a reclaim tunnel installed beneath the COS that leads to the secondary crusher. Feeders will discharge ore to conveyor belts which will in turn discharge to the secondary crusher.

Stormwater controls would be installed to direct runoff around/away from the stockpile. Stormwater runoff generated from within the stockpile area would be routed to the Process Area Stormwater Pond (i.e., process circuit) via stormwater channels or via pumping from sumps located within the general area of the stockpile. Additionally, water that gets into the Reclaim Tunnel below the COS will be collected in sumps and pumped to the process circuit.

No leaching or man-made chemical alteration of the ore would be performed while the ore is stockpiled. Hazardous materials would not be added to the stockpile.

The Oxide Ore COS will be evaluated during the Copper World Project area-wide APP application process and, as appropriate, an application for a Type 2.02 General APP for Intermediate Stockpiles at Mining Sites will be prepared and submitted to ADEQ. This evaluation will also assess whether permitting of the Oxide Ore COS is even required based on the planned construction/operation of the facility. If permitting is required, the Oxide Ore COS also may be incorporated into the area-wide permit.

Per A.A.C. R18-9-C302, the design and operation of Intermediate Stockpiles at Mining Sites must incorporate the following:

- The stockpile must be designed, constructed, and operated so that it does not impound water;
- Storm run-off contacting the stockpile must be directed to a facility covered by an individual or general permit;
- The engineered features of the stockpile facility shall be maintained in good working condition;
- The stockpile facility shall be visually inspected quarterly and any defect shall be repaired as soon as practical; and
- Hazardous substances shall not be added to the stockpiled material.

Additionally, at closure the remaining material will be removed to the greatest extent practicable, and the site area re-graded to prevent water from impounding.

GP-GS-01 Temporary ROM Stockpile (Type 2.02 General Permit)

A Temporary ROM Stockpile (TRS) will be located east of the Plant Site as shown on **Figure 5**. Stockpiling of both sulfide ore and oxide will be based on operational considerations. If ore cannot be immediately crushed because the Primary Crusher has not been constructed or is not operating, the ROM ore would be stockpiled.

Stormwater controls would be installed to direct runoff around/away from the stockpile. Stormwater runoff generated from within the stockpile area would be routed to the Process Area Stormwater Pond (i.e., process circuit) via stormwater channels or via pumping from sumps located within the general area of the stockpile.

The stockpile would be placed directly on the ground and no leaching or man-made chemical alteration of the ore would be performed while the ore is stockpiled. Hazardous materials would not be added to the stockpile.

The TRS will be evaluated during the Copper World Project area-wide APP application process and, as appropriate, an application for a Type 2.02 General APP for Intermediate Stockpiles at Mining Sites will be prepared and submitted to ADEQ. This evaluation will also assess whether permitting of the TRS is even required based on the planned construction/operation of the facility. If permitting is required, the TRS also may be incorporated into the area-wide permit.

Per A.A.C. R18-9-C302 2.02, the design and operation of Intermediate Stockpiles at Mining Sites must incorporate the following:

- The stockpile must be designed, constructed, and operated so that it does not impound water;
- Storm run-off contacting the stockpile must be directed to a facility covered by an individual or general permit;
- The engineered features of the stockpile facility shall be maintained in good working condition;
- The stockpile facility shall be visually inspected quarterly and any defect shall be repaired as soon as practical; and
- Hazardous substances shall not be added to the stockpiled material.

Additionally, at closure the remaining material will be removed to the greatest extent practicable, and the site area re-graded to prevent water from impounding.

GP-WR-01 Large Truck Tire Disposal Area(s) (Type 1.06 General Permit)

Large equipment tires will be disposed of within the WRF under a Type 1.06 General APP. Cover requirements found at A.A.C. R18-13-1203 will be followed (6-inch cover of earthen material within 50 days of placement, 3 feet cover of earthen material within 180 days of placement of last tire). Additional waste program rules are found at A.A.C. R18-13-1201 *et seq*.

The anticipated Large Truck Tire Disposal Areas are not shown on the attached figures.

5.0 AREA-WIDE APP REGULATED FACILITIES

This section provides a brief description of each APP regulated facility to be covered under the area-wide APP application for the Copper World Project. The locations of these facilities are shown on **Figures 4 and 5**.

Some of the facilities listed in this section have prescriptive BADCT established by ADEQ. In the case of the lined 'non-stormwater' ponds, the prescriptive BADCT design was augmented with the addition of a geosynthetic clay liner (GCL) and the substitution of a GCL in lieu of a compacted, low-permeability layer for the double-lined, process water ponds and for the heap leach. An individual BADCT assessment was applied to the tailings facilities (TSFs), waste rock facility (WRF), and open pits. The BADCT assessments for the facilities included in this section are provided in the main APP application document for the Copper World Project.

AR-TF-01 Tailings Storage Facility No. 1 (TSF-1)

Tailings Storage Facility No. 1 (TSF-1) will be a conventional storage facility constructed of cyclone tailings. TSF-1 will incorporate a seepage collection system underneath the tailings footprint as well as seepage collection trenches located along the downgradient perimeter of the Facility. Seepage water will be pumped to the Primary Settling Pond. TSF-1 is a categorical APP facility pursuant to A.R.S. § 49-241(B)(6).

AR-TF-01 Tailings Storage Facility No. 2 (TSF-2)

Tailings Storage Facility No. 2 (TSF-2) will be a conventional storage facility constructed of cyclone tailings. TSF-2 will incorporate a seepage collection system underneath the tailings footprint as well as seepage collection trenches located along the downgradient perimeter of the Facility. Seepage water will be pumped to the Primary Settling Pond. TSF-2 is a categorical APP facility pursuant to A.R.S. § 49-241(B)(6).

AR-TF-03 Primary Settling Pond (PSP)

The Primary Settling Pond (PSP) will be a double-lined pond that will receive and store seepage from the tailings storage facilities (TSF-1 and TSF-2). The PSP is considered a process solution pond. This surface impoundment is a categorical APP facility pursuant to A.R.S. § 49-241(B)(1).

This double-lined pond will have a leak collection and removal system (LCRS). A geosynthetic clay liner (GCL) will be used in lieu of a low-permeability soil layer underneath the secondary (bottom) liner.

The PSB will be divided into two (2) sections. One section will be reserved, as needed, for an emergency tailings thickener evacuation.

An underdrain system will also be incorporated into the design of the PSP.

The proposed lining system for this pond is as follows from top to bottom:

- 80-mill HDPE primary liner (top liner);
- LCRS;
- 80-mil HDPE secondary liner (bottom liner);
- GCL; and
- Prepared subgrade (6-inch minimum).

The smaller pond section will incorporate an access ramp and three (3) feet of gravel will be placed over the top liner as a protective layer from equipment during cleanout. A spillway will connect both sections in case both sections are needed for containing seepage water or other contact water, such as stormwater, from the TSF-1 and TSF-2.

HDPE = High-Density Polyethylene

AR-WR-01 Waste Rock Facility (WRF)

The Waste Rock Facility (WRF) will be constructed between the Peach-Elgin Pit Area and the Rosemont Pit. Waste rock will also be used to construct haul roads and for fill such as for the Plant Site area and as a foundation for the Heap Leach Pad (HLP). Waste rock will be characterized as non-acid generating (NAG), potentially acid-generating (PAG) and acid-generating (AG). Testing and placement of the waste rock will follow the Waste Rock Handling Plan (Rosemont, 2022). NAG waste rock will preferentially be placed on the outer slopes of facilities while PAG materials will be placed on the interior. AG materials will be encapsulated.

AR-HL-01 Heap Leach Pad

The Heap Leach Pad (HLP) will be constructed south of the Plant Site area. The lined HLP will utilize gravity drainage via perforated drain pipelines to route solutions to a downhill perimeter berm and collection ditch/pipeline system to a Pregnant Leach Solution (PLS) Pond. The Heap Leach Pad is a categorical APP facility pursuant to A.R.S. § 49-241(B)(7).

A geosynthetic clay liner (GCL) will be used in lieu of a low-permeability soil layer underneath the liner.

An underdrain system will also be incorporated into the design of the HLP.

The proposed lining system for the HLP is as follows from top to bottom:

- 80-mill LLDPE liner (double side textured);
- GCL;
- Prepared subgrade (12-inch minimum).

LLDPE = Linear Low-Density Polyethylene

AR-HL-02 Pregnant Leach Solution (PLS) Pond

The PLS Pond will be a double-lined pond that will receive and store PLS from the HLP before the solution is pumped to the SX-EW Plant for processing and is considered a process solution pond. This surface impoundment is a categorical APP facility pursuant to A.R.S. § 49-241(B)(1).

This double-lined pond will have a leak collection and removal system (LCRS). A geosynthetic clay liner (GCL) will be used in lieu of a low-permeability soil layer underneath the secondary (bottom) liner.

An underdrain system will also be incorporated into the design of the PLS Pond.

The proposed lining system for this pond is as follows from top to bottom:

- 80-mill HDPE primary liner (top liner);
- LCRS;
- 80-mil HDPE secondary liner (bottom liner);
- GCL; and
- Prepared subgrade (6-inch minimum).

AR-HL-03 HLF North Stormwater Pond

The HLF North Stormwater Pond is a single-lined surface impoundment located on the west edge of the Plant Site. This pond will collect stormwater runoff from the Plant Site area and is considered a “non-stormwater” pond. This surface impoundment is a categorical APP facility pursuant to A.R.S. § 49-241(B)(1).

This single-lined pond will normally be empty in preparation for storm events. A geosynthetic clay liner (GCL) will also be placed underneath the liner in addition to 6-inches of prepared subgrade.

An underdrain system will also be incorporated into the design of the HLF North Stormwater Pond.

The proposed liner system, from top to bottom, is as follows:

- 80-mil HDPE liner;
- GCL; and
- A minimum of 6-inches of prepared subgrade.

AR-PS-04 HLF South Stormwater Pond

The HLF South Stormwater Pond is a single-lined surface impoundment located west of the Heap Leach Pad (HLP). This pond will collect stormwater runoff from the HLP and is considered a “non-stormwater” pond. This surface impoundment is a categorical APP facility pursuant to A.R.S. § 49-241(B)(1).

This single-lined pond will normally be empty in preparation for storm events. A geosynthetic clay liner (GCL) will also be placed underneath the liner in addition to 6-inches of prepared subgrade.

An underdrain system will also be incorporated into the design of the HLF South Stormwater Pond.

The proposed liner system, from top to bottom, is as follows:

- 80-mil HDPE liner;
- GCL; and
- A minimum of 6-inches of prepared subgrade.

AR-PS-01 Reclaim Pond

The Reclaim Pond is a double-lined surface impoundment located on the west edge of the Plant Site. This pond will take reclaimed water from the sulfide ore processing circuit and is considered a process water pond. This surface impoundment is a categorical APP facility pursuant to A.R.S. § 49-241(B)(1).

This double-lined pond will have a leak collection and removal system (LCRS). A geosynthetic clay liner (GCL) will be used in lieu of a low-permeability soil layer underneath the secondary (bottom) liner.

The liner system, from top to bottom, is as follows:

- 80-mil HDPE primary liner (top liner);
- LCRS;
- 80-mil HDPE secondary liner (bottom liner);
- GCL; and
- A minimum of 6-inches of prepared subgrade.

AR-PS-02 Raffinate Pond

The Raffinate Pond will be a double-lined surface impoundment that will store raffinate generated from the SX-EW plant before it is pumped through a pipeline to the HLP and is considered a process solution pond. This surface impoundment is a categorical APP facility pursuant to A.R.S. § 49-241(B)(1).

This double-lined pond will have a leak collection and removal system (LCRS). A geosynthetic clay liner (GCL) will be used in lieu of a low-permeability soil layer underneath the secondary (bottom) liner.

The proposed lining system for this pond is as follows from top to bottom:

- 80-mill HDPE primary liner (top liner);
- LCRS;
- 80-mil HDPE secondary liner (bottom liner);
- GCL; and
- Prepared subgrade (6-inch minimum).

AR-PS-03 Process Area Stormwater Pond

The Process Area Stormwater Pond is a single-lined surface impoundment located on the west edge of the Plant Site. This pond will collect stormwater runoff from the Plant Site area and is considered a “non-stormwater” pond. This surface impoundment is a categorical APP facility pursuant to A.R.S. § 49-241(B)(1).

This single-lined pond will normally be empty in preparation for storm events. A geosynthetic clay liner (GCL) will also be placed underneath the liner in addition to 6-inches of prepared subgrade.

The proposed liner system, from top to bottom, is as follows:

- 80-mil HDPE liner;
- GCL; and
- A minimum of 6-inches of prepared subgrade.

AR-OP-01 Peach Pit

The Peach Pit will be mined early in the life of the Copper World Project. It is predicted that a pit lake will form at closure with the potential for flow-through conditions to develop due to groundwater recovery. Therefore, this pit is considered an APP regulated facility.

AR-OP-02 Elgin Pit

The Elgin Pit will be mined early in the life of the Copper World Project. It is predicted that a pit lake will form at closure with the potential for flow-through conditions to develop during groundwater recovery. Therefore, this pit is considered an APP regulated facility.

AR-OP-03 Heavy Weight Pit

The Heavy Weight Pit will eventually be backfilled with waste rock during the life of the Copper World Project. At closure, it is predicted that flow-through conditions have the potential to develop through the waste rock backfill due to groundwater recovery. Therefore, this pit is considered an APP regulated facility.

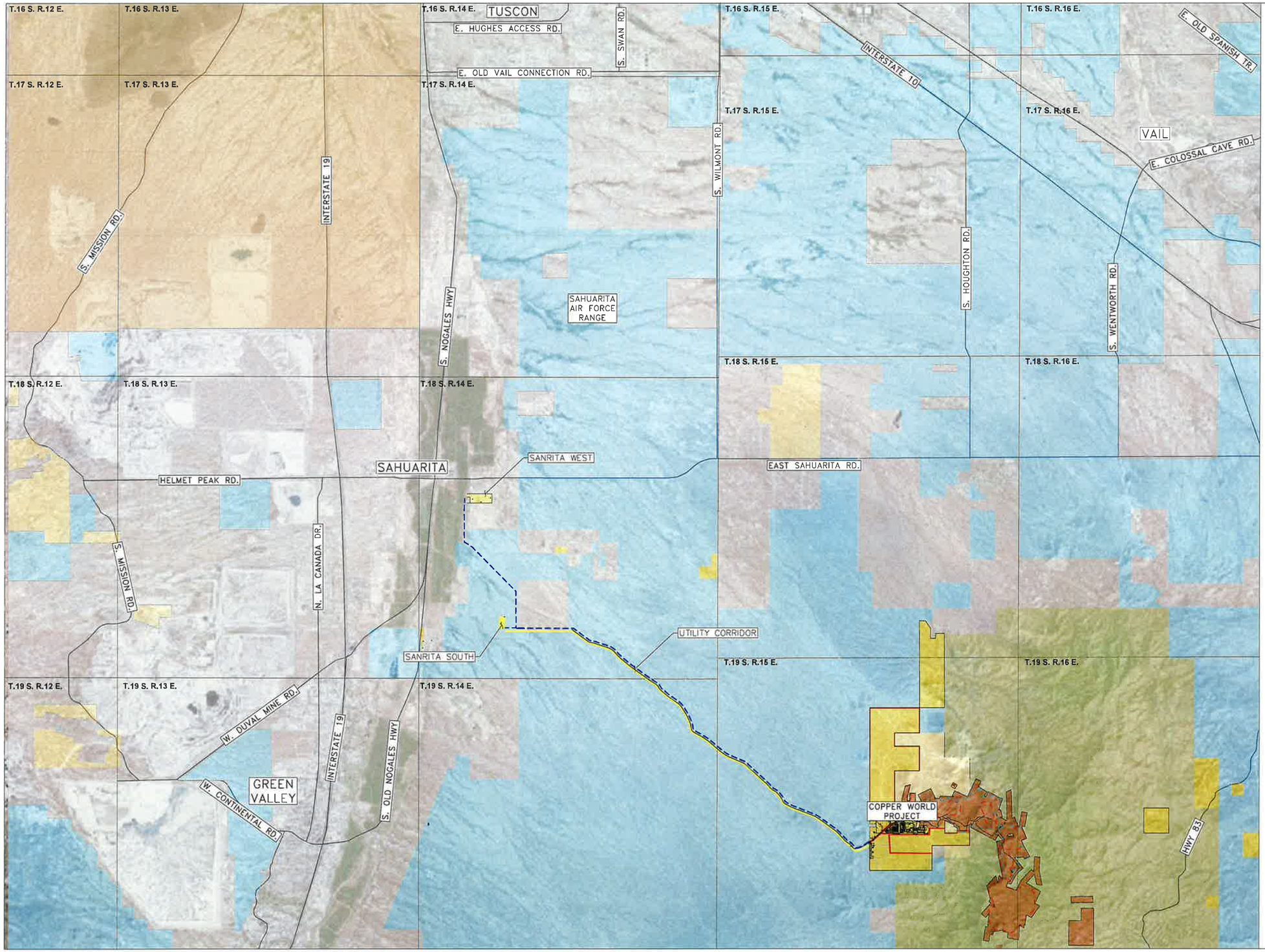
AR-OP-04 Copper World Pit

The Copper World Pit will eventually be backfilled with waste rock during the life of the Copper World Project. At closure, it is predicted that flow-through conditions have the potential to develop through the waste rock backfill due to groundwater recovery. Therefore, this pit is considered an APP regulated facility.

AR-OP-05 Broadtop Butte Pit

The Broadtop Butte Pit will eventually be backfilled with waste rock during the life of the Copper World Project. At closure, it is predicted that flow-through conditions have the potential to develop through the waste rock backfill due to groundwater recovery. Therefore, this pit is considered an APP regulated facility.

FIGURES



LEGEND

- EXISTING ROADWAY
- TOWNSHIP LINE
- WATERLINE
- POWER LINE
- GENERAL FACILITY FOOTPRINT
- PIT OUTLINE
- WASTE ROCK OUTLINE
- ROSEMONT PATENTED LANDS
- ROSEMONT FEE LANDS
- PRIVATE LAND
- BLM
- USFS
- STATE
- TRIBAL LANDS

N

SCALE

5000' 0 5000' 10000'

CONTOUR INTERVAL = 10'

PROJECT: COPPER WORLD PROJECT	
COUNTY: PIMA	STATE: ARIZONA
	DATE: JULY 2022
FIGURE 1 VICINITY MAP	
HUDBAY	

Non-Discharging Exempt Facilities	
ND-OS-01	Fresh Water Well Fields, Pipelines, and Booster Stations
ND-OS-02	Toro Switchyard (Sanrita South)
ND-OS-03	138 kV Powerline
ND-GS-01	Fresh/Fire Water Tank
ND-GS-02	Explosives Magazine
ND-GS-03	Mine Water Tanks (and distribution system)
ND-GS-04	Field Office(s)
ND-GS-05	Tailings Slurry Pipeline(s)
ND-GS-06	Monitoring Wells
ND-OP-01	Rosemont Pit
ND-PS-01	Switchyard
ND-PS-02	Plant Substation
ND-PS-03	Mill Electric Gear
ND-PS-04	SX-EW Rectifier/Substation
ND-PS-05	Potable Water Tank and Distribution System
ND-PS-06	Gatehouse (and weigh scale)
ND-PS-07	Administration/Mine Offices
ND-PS-08	Laboratory
ND-PS-09	Mine Change House
ND-PS-10	Plant Maintenance Building
ND-PS-11	Plant Office/Change House
ND-PS-12	Main Warehouse
ND-PS-13	Truck Shop (includes fuel station[s])
ND-PS-14	Truck Wash (includes lube bay)
ND-PS-15	Primary Crusher - Sulfide Ore
ND-PS-16	Sulfide Ore Grinding Circuit
ND-PS-17	Copper Flotation
ND-PS-18	Molybdenum (Moly) Flotation
ND-PS-19	Reagent Storage (flotation/concentrate leach)
ND-PS-20	Bulk Cu/Mo Thickener
ND-PS-21	Copper Concentrate Thickening, Filtering and Loadout
ND-PS-22	Moly Concentrate Filtration and Bagging
ND-PS-23	Tailings Thickeners
ND-PS-24	Flocculant Plant (Tailings Thickeners)
ND-PS-25	Limestone Grinding Plant/Lime Plant
ND-PS-26	Concentrate Leach Fine Grinding Plant
ND-PS-27	Concentrate Leach Circuit
ND-PS-28	Oxygen Plant(s)
ND-PS-29	Concentrate Leach Desulfurization
ND-PS-30	Concentrate Leach Iron Control
ND-PS-31	Concentrate Leach Flocculant Plant
ND-PS-32	Sulfur Purification
ND-PS-33	Acid Plant
ND-PS-34	Gold/Silver Leach Circuit
ND-PS-35	Primary Crusher - Oxide Ore
ND-PS-36	Oxide Secondary Crusher
ND-PS-37	Oxide Conveyor Transfer Point/Agglomerator
ND-PS-38	Crushed Oxide Ore Conveyor System
ND-PS-39	Solvent Extraction Plant
ND-PS-40	Electrowinning Plant
ND-PS-41	Reagent Storage (SX-EW)
ND-PS-42	Ammonium Nitrate Storage

Other Exempt Facilities	
EX-GM-01	Growth Media Stockpile(s)
EX-CF-01	Columbia Smelter Slag Pile
EX-CF-02	Copper World Reclaimed Tailings

APP Regulated Facilities (Area Wide)	
AR-TF-01	Tailings Facility No. 1 (TSF-1)
AR-TF-02	Tailings Facility No. 2 (TSF-2)
AR-TF-03	Primary Settling Pond (PSP)
AR-WR-01	Waste Rock Facility (WRF)
AR-HL-01	Heap Leach Pad (HLP)
AR-HL-02	Pregnant Leach Solution (PLS) Pond
AR-HL-03	HLF North Stormwater Pond
AR-HL-04	HLF South Stormwater Pond
AR-PS-01	Reclaim Pond
AR-PS-02	Raffinate Pond
AR-PS-03	Process Area Stormwater Pond
AR-OP-01	Peach Pit
AR-OP-02	Elgin Pit
AR-OP-03	Heavy Weight Pit
AR-OP-04	Copper World Pit
AR-OP-05	Broadtop Butte Pit

APP Regulated Facilities (General Permit)	
GP-PS-01	Sewage Treatment Facilities
GP-PS-02	SW Energy Vehicle and Equipment Wash
GP-PS-03	Coarse Ore Stockpile (Sulfide Ore)
GP-PS-04	Coarse Ore Stockpile (Oxide Ore)
GP-GS-01	Temporary ROM Stockpile (TRS)
GP-SW-01	Stormwater Controls (channels, sediment basins, etc.)
GP-WR-01	Large Truck Tire Disposal Area(s)

LEGEND

AR - APP Regulated facility
CF - Closed Facility
EX - Exempt Facility
GM - Growth Media
GP - Generally Permitted
GS - General Site
HL - Heap Leach
ND - Non-Discharging
OP - Open Pit
OS - Off Site
PS - Plant Site
SW - Stormwater
TF - Tailings Facility
WR - Waste Rock

NOTES:

1. THE LOCATION OF THE EXPLOSIVES MAGAZINE (ND-OS-02) NOT SHOWN ON FIGURES.
2. THE LOCATION OF THE GROWTH MEDIA STOCKPILES (EX-GM-01) NOT SHOWN ON FIGURES.
3. SEE SITE WATER MANAGEMENT PLAN (WOOD, 2022G) FOR GP-SW-01 FACILITIES.
4. FRESH/FIREWATER TANK (ND-GS-01) NOT SHOWN ON FIGURES.
5. MINE WATER TANKS (ND-GS-03) NOT SHOWN ON FIGURES.
6. MONITORING WELLS (ND-GS-06) NOT SHOWN ON FIGURES.
7. LARGE TRUCK TIRE DISPOSAL AREAS (ND-WR-01) NOT SHOWN ON FIGURES.

PROJECT:
COPPER WORLD PROJECT

COUNTY: PIMA	STATE: ARIZONA
	DATE: JULY 2022

FIGURE 2 FACILITY DESIGNATIONS

HUDBAY

T.18 S. R.14 E.

T.18 S. R.15 E.

T.18 S. R.16 E.

T.19 S. R.14 E.

T.19 S. R.15 E.

T.19 S. R.16 E.

SANRITA WEST WELL FIELD ND-OS-01

WELL DISTRIBUTION TO PUMP STATION No. 1 ND-OS-01

SANRITA SOUTH WELL FIELD, FWDS PUMP STATION No. 1 (ND-OS-01) & TORO SWITCHYARD AND PUMP STATION ELECTRICAL SUBSTATION (ND-OS-02)

UTILITY CORRIDOR WATERLINE (ND-OS-01) AND POWER LINE (ND-OS-03)

TSF-1

PEACH PIT

ELGIN PIT

HEAVY WEIGHT PIT

WASTE ROCK FACILITY

COPPER WORLD PIT

FLOTATION AREA

OFFICE AND STORAGE AREAS

WASTE ROCK FACILITY/HEAP LEACH PAD

MIA

GRINDING AREA

CRUSHER AREA

TSF-2

FWDS PUMP STATION No. 2 ND-OS-01

BROADTOP BUTTE PIT

ROSEMONT PIT

LEGEND

- TOWNSHIP LINE
- WATERLINE
- POWER LINE
- GENERAL FACILITY FOOTPRINT
- PIT OUTLINE
- ROSEMONT PATENTED LANDS
- ROSEMONT FEE LANDS
- PRIVATE LAND
- BLM
- USFS
- STATE

N

SCALE

2500' 0 2500' 5000'

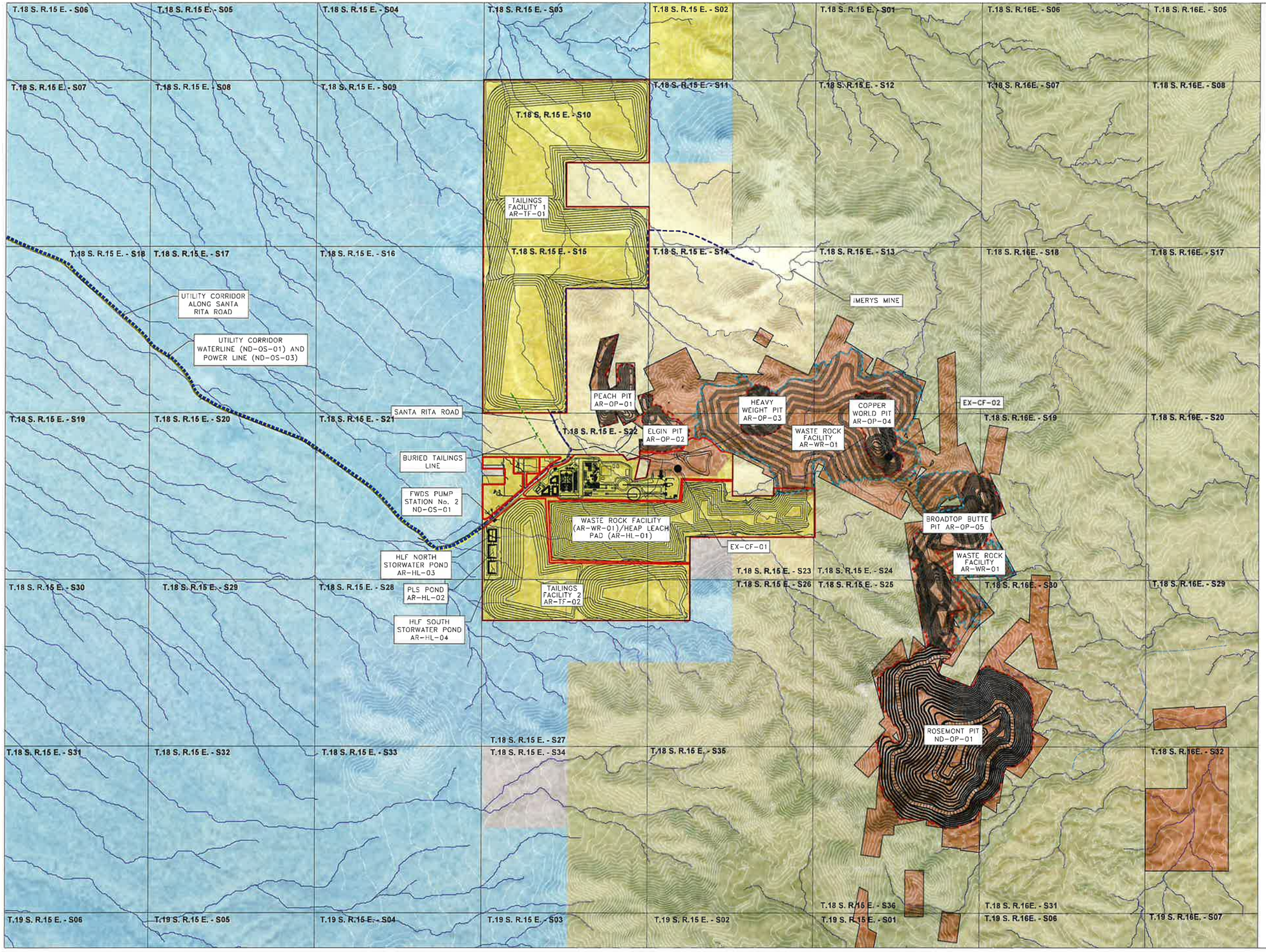
PROJECT: **COPPER WORLD PROJECT**

COUNTY: PIMA | STATE: ARIZONA

DATE: JULY 2022

FIGURE 3 UTILITY CORRIDOR

HUDBAY



LEGEND

- TOWNSHIP LINE
- WATERLINE
- POWER LINE
- GENERAL FACILITY FOOTPRINT
- PIT OUTLINE
- WASTE ROCK FACILITY (WRF)
- BURIED TAILINGS LINE
- ROAD
- PIMA COUNTY FLOODPLAIN
- ROSEMONT PATENTED LANDS
- ROSEMONT FEE LANDS
- PRIVATE LAND
- BLM
- USFS
- STATE

NOTES:

1. HEAVY WEIGHT, COPPER WORLD AND BROADTOP BUTTE PITS ARE BACKFILLED WITH WASTE ROCK.
2. MINE HAUL AND ACCESS ROADS NOT SHOWN.
3. FACILITY FOOTPRINT BOUNDARIES ARE APPROXIMATE.

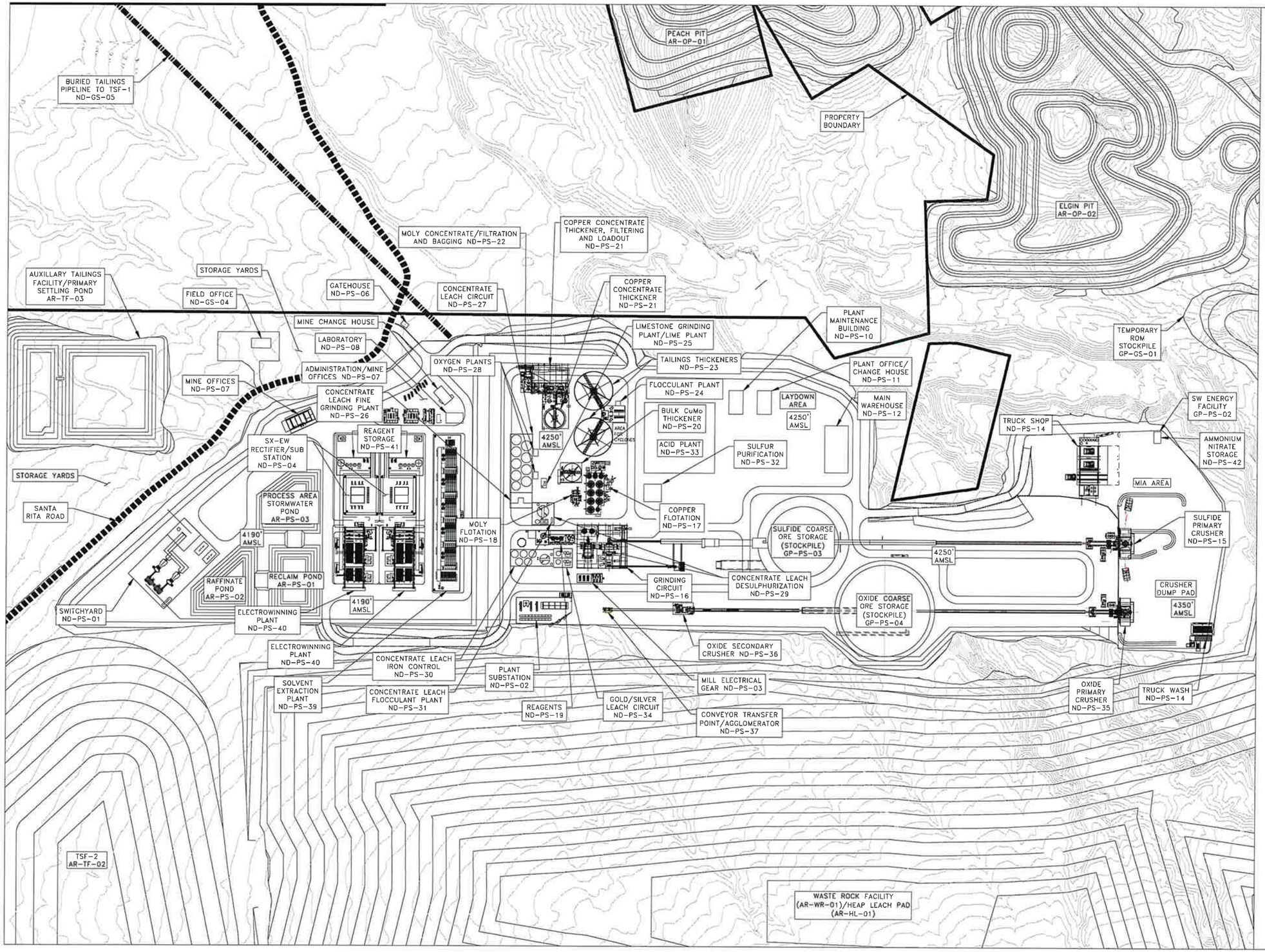
N

SCALE

1500' 0 1500' 3000'

CONTOUR INTERVAL = 10'

PROJECT: COPPER WORLD PROJECT	
COUNTY: PIMA	STATE: ARIZONA
	DATE: JULY 2022
FIGURE 4 FACILITY LOCATIONS	
HUDBAY	



LEGEND

- EXISTING ROAD
- BURIED TAILINGS LINE
- PROPERTY BOUNDARY

NOTE:

1. AMSL = ABOVE MEAN SEA LEVEL.

N

SCALE

200' 0 200' 400'

PROJECT:
ROSEMONT COPPER WORLD PROJECT

COUNTY: PIMA	STATE: ARIZONA
	DATE: MAY 2022

FIGURE 5
FACILITY LOCATIONS
PLANT SITE AREA

HUDBAY

RCC-CW001866